US006433730B1

(12) **United States Patent**
Borla

(10) **Patent No.: US 6,433,730 B1**
(45) **Date of Patent: Aug. 13, 2002**

(54) **NOISE RIDING THRESHOLD CONTROL WITH IMMUNITY TO SIGNALS WITH HIGH PULSE REPETITION FREQUENCIES AND HIGH DUTY CYCLES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/867,700**

(22) Filed: **Jun. 7, 2001**

(51) **Int. Cl.**[7] **G01S 7/285**

(52) **U.S. Cl.** **342/91**; 342/93; 342/99; 342/197

(58) **Field of Search** 342/13, 89, 91, 342/92, 93, 94, 99, 159, 162, 192, 195, 196, 197

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(57) **ABSTRACT**

A system and method is disclosed for a radar receiver, such as a wideband crystal video early warning receiver, to automatically detect the noise level of the radar receiver with immunity to high pulse repetition frequencies and high duty cycle signals. The noise riding threshold circuit utilizes high frequency components of the noise and, to the attenuated extent present, high frequency components of the video signal to produce the noise riding threshold voltage. An amplifier gain control permits adjusting the noise-riding threshold to a fixed relative level. In a preferred embodiment, the noise riding threshold control of the present invention utilizes current feedback amplifiers for wide bandwidth, high gain video amplifiers.

18 Claims, 1 Drawing Sheet